

# Notice of Allowability

Application No.

10/702,188

Examiner

DUC Q. DINH

Applicant(s)

LIM ET AL.

Art Unit

2674

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on October 26, 2005.
2. ☒ The allowed claim(s) is/are 1-6 and 8, renumbered as 1-7.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This is response to the amendment filed on October 26, 2005. Claims 1-6 and 8 are pending in the Application. Claims 1, 2 and 5 are amended, claim 8 is newly added.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Scott Harris on January 6, 2006.

The application has been amended as follows:

Claim 1 is amended as follows:

1. (Currently amended) An LED array comprising:

a plurality of LEDs, each with a first and second terminal, wherein the plurality of LEDs are arranged in a plurality of columns of LEDs having their first s terminals electrically connected and a plurality of rows of LEDs having their second terminals electrically connected;

a plurality of column select switches, each column select switch being coupled to a column of the LEDs;

a plurality of column control input terminals for receiving column control input signals, a column control input terminal being coupled to n of the column select switches, wherein n is at

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least two, for selectively activating the column select switches when an active column control input signal is provided;

a plurality of column decoding switches, each column decoding switch attached to a plurality of column select switches for selectively coupling a column reference voltage through the column select switches to the columns of LEDs when both the column decoding switches and column select switches are activated;

a configcol input terminal for receiving configcol input signals coupled to n column decoding switches of the plurality of decoding switches, the configcol input signals having n states causing the nth column decoding switch to be activated when the configcol input signal is in the nth state;

the column decoding switches activated sequentially and for each activated column decoding switch the corresponding plurality of column select switches activated sequentially to provide the column reference voltage sequentially to the columns of LEDs; and

the LEDs in the array lit by providing a row reference voltage to the rows having LEDs to be lit when a column is coupled to the column reference voltage.

***Allowable Subject Matter***

3. Claims 1-6 and 8 are allowed and renumbered as 1-7.

***Reason for Allowance***

4. The following is an examiner's statement of reasons for allowance:

The present invention related to a implementation of LED's arrays a light emitting display device that allow at least one of the row or column control inputs is couples to more than

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one row or column of the LEDs arrays. The sole independent claim 1 identifies the uniquely distinct features

“a plurality of column control input terminals for receiving column control input signals, a column control input terminal being coupled to n of the column select switches, wherein n is at least two, for selectively activating the column select switches when an active column control input signal is provided;

a plurality of column decoding switches, each column decoding switches attached to a plurality of column selects switches for selectively coupling a column reverence voltage through the column select switches to the columns of LEDs when both the column decoding switches and column select switches are activated”

The closest prior art of Huang et al. (U.S Patent No.5,789,535) and Walczak (EP 0597226A1) show similar systems, but either singularly or in combination, fail to anticipate or render above quoted limitations obvious.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Conclusion***

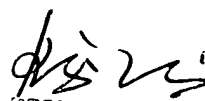
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edouard Patrick can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUC Q DINH  
Examiner  
Art Unit 2674

  
REGINA LIANG  
PRIMARY EXAMINER

DQD  
January 6, 2006